

have been canceled without prejudice. Claim 1 has been amended as discussed below. Support for the amendment to claim 1 is found at page 3, line 27, to page 4, line 6, and page 7, lines 18-31 (second full paragraph), of the specification and original claim 5. Claims 1-4, 6-13, and 15-18 are pending and at issue. No new matter has been added by this amendment.

Claims 1-18 have been rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The phrase "wherein the entanglement-based nonwoven fabric is derived from merely-entangled nonwoven fabric" is allegedly unclear. While applicant respectfully disagrees with the Examiner, in order to expedite prosecution of this application, claim 1 has been amended to recite that (1) the entanglement-based nonwoven fabric comprises a merely-entangled nonwoven fabric fused with thermally fusible fibers, and (2) the average of the longitudinal tensile strength and the transverse tensile strength of the entanglement-based nonwoven fabric is higher than that of the merely-entangled nonwoven fabric. Accordingly, applicant respectfully requests withdrawal of this rejection.

Claims 1-18 have been rejected under 35 U.S.C. §103(a) as obvious over Nemoto et al. (U.S. Patent No. 6,102,465) in view of Nagata et al. (U.S. Patent No. 6,312,542).

Applicant traverses this rejection and requests reconsideration.

The Examiner contends that since the tensile strength range recited in claim 1 is for an intermediate product, it should not be given patentable weight.

Contrary to the Examiner's assertion, the merely-entangled nonwoven fabric is contained in the nonwoven fabric-laminate (i.e., the claimed product). See claim 1. The properties of the merely-entangled nonwoven fabric component effect the properties of the overall product, i.e., the nonwoven fabric-laminate, as evidenced by the change in the laminate's rigidity (see Table 1 on page 28 of the specification). Therefore, applicant respectfully submits that the average tensile strength range specified in claim 1 is a limitation to the claim.

In the March 1, 2002 Office Action, the Examiner alleged that the motivation to combine Nemoto and Nagata was due to "the desire to allow layer '5' of Nemoto to absorb multiple sound frequencies." See the first paragraph on page 4 of the March 1, 2002 Office Action.

As noted in applicant's June 3, 2002 Amendment, Nemoto and Nagata are concerned with the sound absorption properties of the materials described therein, not their rigidity. As shown by the accompanying Declaration under 37 C.F.R. §1.132 by inventor Akira Utsumi, a fabric-laminate incorporating a merely-entangled nonwoven fabric having an average tensile strength of 150 N/50 mm width has significantly worse sound absorption over a broad frequency range than a fabric-laminate incorporating a merely-entangled nonwoven fabric having an average tensile strength of 85 N/50 mm width. See the last three paragraphs on page 3 and Figure 1 on page 5 of the Declaration. Hence, the higher the tensile strength, the lower the sound absorption. See the last paragraph on page 3 of the Declaration. Consequently, for

the same reasons the Examiner alleges that Nemoto and Nagata should be combined, one of ordinary skill in the art would not have the motivation to include a merely-entangled nonwoven fabric having a high average tensile strength, such as that recited in claim 1, in the sound absorption materials disclosed in Nemoto and Nagata.

Finally, the Examiner argues that “the web created by the combination of Nemoto and Nagata inherently has the same tensile strength as applicants’s claimed laminate … [since] the fabric created by said combination … is formed by the same process …” See the third full paragraph on page 3 of the July 17, 2002 Office Action.

As shown by Example 1 (pages 23-24) and Comparative Example 1 (page 26) in the present application, the method of preparing the merely-entangled nonwoven fabric has a significant impact on the average tensile strength of the resulting merely-entangled nonwoven fabric. In Example 1, the merely-entangled nonwoven fabric was prepared by a fluid jet entangling method, which resulted in the fabric having an average tensile strength of 180 N/50 mm. See the paragraph spanning pages 23 and 24. In contrast, the merely-entangled nonwoven fabric in Comparative Example 1 was prepared by needle-punching resulting in a fabric having an average tensile strength of 100 N/50 mm width. See also Comparative Example 2 (page 27) which shows that a merely-entangled nonwoven fabric prepared by a hydro-entangling method resulted in a fabric having an average tensile strength of 120 N/50 mm width. Neither Nemoto nor Nagata disclose a fluid jet entangling method, such as that used in the Examples of the present application. Therefore, contrary to

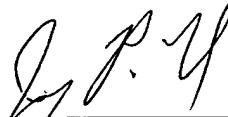
the Examiner's assertion, the fabrics disclosed in Nemoto and Nagata are not prepared by the same method as those exemplified in the present application.

For the foregoing reasons, Nemoto and Nagata alone or together fail to render obvious the presently claimed invention. Accordingly, applicant respectfully requests withdrawal of this rejection.

Therefore, in view of the above amendments and remarks, it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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Marked-Up Claim
Accompanying October 17, 2002 Amendment
For U.S. Serial No. 09/460,361
(Docket No. 3725/OJ203)

1. (Twice Amended) A nonwoven fabric-laminate comprising:
(A) a rigid layer of an entanglement-based nonwoven fabric; and
(B) a bulky layer of a bulky nonwoven fabric having an apparent density lower than that of said rigid layer,

wherein

(i) the entanglement-based [non-woven] nonwoven fabric [is derived from] comprises a merely-entangled nonwoven fabric fused with thermally-fusible fibers,

(ii) the average of the longitudinal tensile strength and the transverse tensile strength of the merely-entangled nonwoven fabric [being] is not less than 150 N/50 mm width, and

(iii) the average of the longitudinal tensile strength and the transverse tensile strength of the entanglement-based nonwoven fabric is higher than that of the merely-entangled nonwoven fabric.



Pending Claims
Accompanying October 17, 2002 Amendment
For U.S. Serial No. 09/460,361
(Docket No. 3725/OJ203)

1. (Twice Amended) A nonwoven fabric-laminate comprising:
(A) a rigid layer of an entanglement-based nonwoven fabric; and
(B) a bulky layer of a bulky nonwoven fabric having an apparent density lower than that of said rigid layer,

wherein

- (i) the entanglement-based nonwoven fabric comprises a merely-entangled nonwoven fabric fused with thermally-fusible fibers,
- (ii) the average of the longitudinal tensile strength and the transverse tensile strength of the merely-entangled nonwoven fabric is not less than 150 N/50 mm width, and
- (iii) the average of the longitudinal tensile strength and the transverse tensile strength of the entanglement-based nonwoven fabric is higher than that of the merely-entangled nonwoven fabric.

2. (Amended) The nonwoven fabric-laminate according to claim 1, wherein an apparent density of said rigid layer is less than 0.15 g/cm³.

3. (Amended) The nonwoven fabric-laminate according to claim 1, wherein a thickness of said rigid layer is 0.8 mm or more.

4. (Amended) The nonwoven fabric-laminate according to claim 1, wherein a difference between the apparent density of said rigid layer and the apparent density of said bulky layer is not more than 0.14 g/cm³.

6. (Amended) The nonwoven fabric-laminate according to claim 1, wherein said bulky layer contains thermally-fusible fibers, and said bulky nonwoven fabric in said bulky layer is fused with said thermally-fusible fibers.

7. (Amended) The nonwoven fabric-laminate according to claim 1, wherein said rigid layer and/or said bulky layer contain profile fibers and/or hollow fibers.

8. (Amended) The nonwoven fabric-laminate according to claim 1, wherein substantially all constituent fibers of said rigid layer are polyester fibers, and substantially all constituent fibers of said bulky layer are polyester fibers.

9. (Amended) The nonwoven fabric-laminate according to claim 1, further comprising a laminated surface layer.

10. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 1 is shaped.

11. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 2 is shaped.

12. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 3 is shaped.

13. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 4 is shaped.

15. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 6 is shaped.

16. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 7 is shaped.

17. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 8 is shaped.

18. (Amended) An automotive internal trim panel into which the nonwoven fabric-laminate according to claim 9 is shaped.